

Technica Manua

STEREO DC INTEGRATED AMPLIFIER RA-1()1()

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Serial Nos. Beginning NC59118

ADDENDA (November, 1981)

- 1. FETs Q401 and Q402 on the MC head-amp circuit can accept both (S) and (R) IDSS ranks.
 - a. Therefore it is necessary to use appropriate drain resistors R403 and R404 according to the IDSS rank of the FETs.

2SK155: For IDSS (S) rank; R403, R404 - 820 ohms (conventional value)

> For IDSS (R) rank: R403, R404 - 2.7 kilohms

- b. A 2.2-kilohm resistor is additionally installed between the junction of R438 and R439 on +B circuit of the MC head-amp when (R) rank FET is used.
- c. 2SK155 (R) and 2SK155 (S) are replaceable by 2SK130A (K) and 2SK130A (L) respectively.

Part No. 2SK130A (K) - 302001135 2SK130A (L) - 302001136

- 2. For 220V/240V spec. units, noise cancellers C002 and C003 installed between the primary side of the power supply circuit are eliminated.
 - C001 is changed from 0.047 to 0.022 (PME265MB-522, Part No. 470101136).
- 3. For 220V/240V spec. units, secondary fuse F901 is changed from F1A to T1A (Part No. 345952100).

ADDENDA (Novembre, 1981)

- 1. Les FET Q401 et Q402 du circuit d'ampli frontal MC peuvent accepter les niveaux IDSS (S) et (R).
 - a. En conséquence il est nécessaire d'utiliser des résistances de drainage R403 et R404 adéquates en fonction du niveau IDSS des FET.

2SK155: Pour niveau (S) Ipss; R403, R404 -820 ohms (valeur conventionnelle) Pour niveau (R) IDSS; R403, R404 -2,7 kilohms.

- b. Une résistance additionnelle de 2,2 kilohms est ajoutée entre la jonction de R438 et R439 sur le circuit +B de l'ampli frontal MC lorsque le FET utilisé est de niveau (R).
- c. 2SK155 (R) et 2SK155 (S) sont remplaçables respectivement par 2SK130A (K) et 2SK130A (L).

No. de pièce 2SK130A (K) - 302001135 No. de pièce 2SK130A(L) - 302001136

- 2. Pour les unités alimentées sur 220V/240V, les suppresseurs de bruit C002 et C003 insérés entre le côté primaire du circuit d'alimentation sont éliminés. C001 passe de 0,047 à 0,022 (PME265MB522, No. de pièce 470101136).
- 3. Pour les unités alimentées sur 220V/240V, le fusible secondaire F901 passe de F1A à T1A (No. de pièce 345952100).

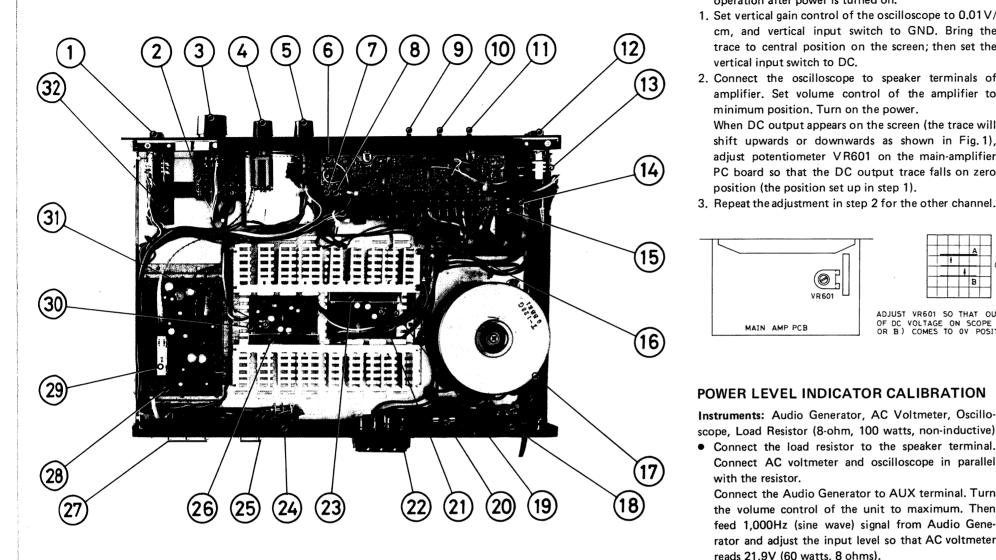
THE ROTEL CO., LTD. ROTEL ELECTRONICS CO., LTD. 2ND FLOOR, EVERGLORY BLDG., NO. 305, SECTION 3, NANKING E. ROAD, TAIPEI, TAIWAN, REPUBLIC OF CHINA ROTEL OF AMERICA, INC. ROTEL HIFI LIMITED

1-36-8 OHOKAYAMA, MEGURO-KU, TOKYO 152, JAP 🔊

1055 SAW MILL RIVER ROAD, ARDSLEY, N.Y. 10502, U.S.A. 2-4 ERICA ROAD, STACEY BUSHES, MILTON KEYNES, BUCKINGHAMSHIRE, ENGLAND

Chassis Layout (Top View)

Installation du châssis (vue de dessus)



- 1. FUNCTION SELECTOR
- 2. TONE AMP PCB
- 3. VOLUME CONTROL
- 4. PHONO SELECTOR UNIT
- 5. TAPE MONITOR SWITCH
- 6. INDICATOR DRIVER PCB
- 7. VR812, R-CH LEVEL IND CAL
- 8. VR811, L-CH LEVEL IND CAL
- 9. TREBLE CONTROL
- 10. MID CONTROL
- 11. BASS CONTROL
- 12. POWER SWITCH
- 13. SPEAKER SWITCH PCB
- 14. POWER SUPPLY PCB
- 15. FUSE, F901, SECONDARY
- 16. PROTECTION RELAY

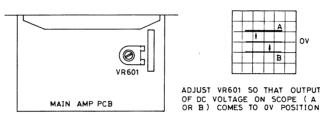
- 17. POWER TRANSFORMER
- 18. VOLTAGE SELECTOR
- 19. MAIN AMP PCB, L-CH
- 20. FUSE, F001, PRIMARY
- 21. VR601, DC BALANCE ADJ, L-CH
- 22. SPEAKER TERMINALS
- 23. POWER AMP IC, IC601, L-CH
- 24. DIN SOCKET
- 25. TAPE MONITOR JACKS
- 26. POWER AMP IC, IC601', R-CH 27. INPUT JACKS
- 28. PHONO AMP PCB
- 29. PHONO SWITCH
- 30. MAIN AMP PCB, R-CH
- 31. VR601', DC BALANCE ADJ, R-CH
- 32. MUTING SWITCH PCB

Adjustment Procedures

DC BALANCE ADJUSTMENT

Instrument: Oscilloscope

- It will take 3 to 7 seconds for the unit to go into operation after power is turned on.
- 1. Set vertical gain control of the oscilloscope to 0.01V/ cm, and vertical input switch to GND. Bring the trace to central position on the screen; then set the vertical input switch to DC.
- 2. Connect the oscilloscope to speaker terminals of amplifier. Set volume control of the amplifier to minimum position. Turn on the power,
- When DC output appears on the screen (the trace will shift upwards or downwards as shown in Fig. 1). adjust potentiometer VR601 on the main-amplifier PC board so that the DC output trace falls on zero position (the position set up in step 1).
- 3. Repeat the adjustment in step 2 for the other channel.



Instruments: Audio Generator, AC Voltmeter, Oscillo-

Connect AC voltmeter and oscilloscope in parallel

Connect the Audio Generator to AUX terminal. Turn

the volume control of the unit to maximum. Then

feed 1,000Hz (sine wave) signal from Audio Generator and adjust the input level so that AC voltmeter

Maintaining this state, adjust the potentiometer

VR811 or VR 812 on the Indicator Driver PC board

so that the level indicator reads OdB (OdB LED turns

• Follow the same procedures to adjust the other chan-

with the resistor.

on). See Fig. 2.

reads 21.9V (60 watts, 8 ohms).

nel by turning VR812 or VR811.

Réglage

Instrument: Oscilloscope

l'alimentation.

établie dans le pas 1).

Réglage de l'équilibrage courant continu

• Il prendra 3 à 7 secondes pour l'unité afin de mettre

en opération depuis que l'alimentation soit allumée.

1. Poser la commande de gain vertical de l'oscilloscope à

puis poser l'interrupteur d'entrée verticale à DC.

2. Connecter l'oscilloscope aux bordes de haut-parleur

0.01 V/cm, et l'interrupteur d'entrée verticale à GND.

Apporter la trace à la position centrale sur l'écran;

de l'amplificateur. Poser la commande de volume de

l'amplificateur à la position minimale. Allumer

Lorsque la sortie de CC apparaît sur l'écran (la trace

déplacera en haut ou en bas comme montré sur la Fig.

1), ajuster le potentiomètre VR601 sur la plaquette

d'amplification principale de sorte que la trace de

sortie de CC tombe sur la position zéro (la position

3. Répéter l'ajustage dans le pas 2 pour l'autre canal.

Réglage du indicateur de niveau de puissance

mètre à courant alternatif, un oscilloscope, une résistance de charge (de 8 ohms, 100 watts, non-inductive).

Connectez le voltmètre à courant alternatif et l'oscilloscope en parallèl avec la résistance.

Connectez le générateur aux bornes auxilliaires

maximum. Puis envoyez un signal de 1.000Hz (onde "LED"sont éteintes. Voir figure 2.

• Suivez le même procédé pour ajuster l'autre canal en tournant le VR812 ou VR811.

Instruments: un générateur d'audio fréquences, un volt-

• Connectez la résistance de charge aux bornes des

(AUX) de l'unité. Tournez le potentiomètre de volume de l'unité au

sinusoïdale) avec le générateur et ajustez le niveau d'entrée de façon que le voltmètre indique une mesure de 21,9V (60 watts, 8 ohms), tout en conservant cet arrangement, réglez le potentiomètre VR811 ou VR812 de la plaquette de l'étage du bord d'attaque de façon que le voltmètre de crête indique une mesure de OdB (à OdB les diodes lumineuses

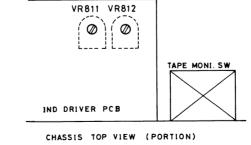


Fig. 2

Repair Parts Lis Liste des pièces

| Schematic Location | Des |
|--|--|
| TRAN | SISTOR |
| Q401, 402 Q403, 404, 904 Q405, 902 Q501, 502 Q601 Q811, 812, 815 816, 906 Q813, 814 Q817, 818, 821 822 to 833 Q819, 820 Q901, 903 | 2SK155 2SA921 2SC131 2SC132 µPA63I 2SC828 2SC138 2SA564 2SK68,4 2SC198 |
| D401, 402 D403 D601, 906 D602, 811 to 814 D815 to 818 D819 to 829 903 to 905 D830 D901 D902 D907, 908 D909, 910 | RD3-6E BZ-120 WZ-162 WZ-067 1K188, MA-150 RB-152 S5VB-2 SR1K-4 BZ-240 BZ-140 |
| IC401, 402 IC501, 703 IC601 IC701, 702, 811 IC812, 813 | SEL88(HA-145 NJM45 SI-146(NJM45 TA761 |
| VR501 VR601 VR701, 702, 703 VR811, 812 VR001 | 250KW 300B, I 50KWT 50KB, 100KB |
| S1 | S Push 3 |
| S2 S3 S4 S5, 6, 7, 8 (1 set) S9, 10 (1 set) S11, 12, 13 (1 set) | Selecto Slide, F Rotary Push 1- Push 4- Push 2- Push 3- |
| L601 RY901 T001 | Coil, A Relay, Power (120, 2 |
| PL001 F901 | (100, 1 Lamp, Fuse, 1 (STD) Fuse, 1 (CEE) |
| F001 | Fuse, £ (STD) Fuse, 2 Type (|

Adjustment Procedures

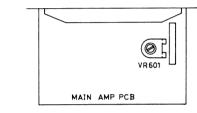
DC BALANCE ADJUSTMENT

Instrument: Oscilloscope

- It will take 3 to 7 seconds for the unit to go into operation after power is turned on.
- Set vertical gain control of the oscilloscope to 0.01V/ cm, and vertical input switch to GND. Bring the trace to central position on the screen; then set the vertical input switch to DC.
- 2. Connect the oscilloscope to speaker terminals of amplifier. Set volume control of the amplifier to minimum position. Turn on the power.

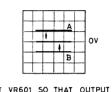
When DC output appears on the screen (the trace will shift upwards or downwards as shown in Fig. 1), adjust potentiometer VR601 on the main-amplifier PC board so that the DC output trace falls on zero position (the position set up in step 1).

3. Repeat the adjustment in step 2 for the other channel.



(15)

(16)



ADJUST VR601 SO THAT OUTPUT OF DC VOLTAGE ON SCOPE (A OR B) COMES TO 0V POSITION.

Réglage

Réglage de l'équilibrage courant continu

Instrument: Oscilloscope

- Il prendra 3 à 7 secondes pour l'unité afin de mettre en opération depuis que l'alimentation soit allumée.
- Poser la commande de gain vertical de l'oscilloscope à 0,01 V/cm, et l'interrupteur d'entrée verticale à GND. Apporter la trace à la position centrale sur l'écran; puis poser l'interrupteur d'entrée verticale à DC.
- 2. Connecter l'oscilloscope aux bordes de haut-parleur de l'amplificateur. Poser la commande de volume de l'amplificateur à la position minimale. Allumer l'alimentation.

Lorsque la sortie de CC apparaît sur l'écran (la trace déplacera en haut ou en bas comme montré sur la Fig. 1), ajuster le potentiomètre VR601 sur la plaquette d'amplification principale de sorte que la trace de sortie de CC tombe sur la position zéro (la position établie dans le pas 1).

3. Répéter l'ajustage dans le pas 2 pour l'autre canal.

Instruments: Audio Generator, AC Voltmeter, Oscilloscope, Load Resistor (8-ohm, 100 watts, non-inductive)

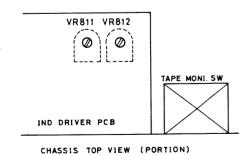
POWER LEVEL INDICATOR CALIBRATION

Connect the load resistor to the speaker terminal.
 Connect AC voltmeter and oscilloscope in parallel with the resistor.

Connect the Audio Generator to AUX terminal. Turn the volume control of the unit to maximum. Then feed 1,000Hz (sine wave) signal from Audio Generator and adjust the input level so that AC voltmeter reads 21.9V (60 watts, 8 ohms).

Maintaining this state, adjust the potentiometer VR811 or VR 812 on the Indicator Driver PC board so that the level indicator reads 0dB (0dB LED turns on). See Fig. 2.

• Follow the same procedures to adjust the other channel by turning VR812 or VR811.



Réglage du indicateur de niveau de puissance

Instruments: un générateur d'audio fréquences, un voltmètre à courant alternatif, un oscilloscope, une résistance de charge (de 8 ohms, 100 watts, non-inductive).

 Connectez la résistance de charge aux bornes des haut-parleurs.

Connectez le voltmètre à courant alternatif et l'oscilloscope en parallèl avec la résistance.

Connectez le générateur aux bornes auxilliaires (AUX) de l'unité.

Tournez le potentiomètre de volume de l'unité au maximum. Puis envoyez un signal de 1.000Hz (onde sinusoïdale) avec le générateur et ajustez le niveau d'entrée de façon que le voltmètre indique une mesure de 21,9V (60 watts, 8 ohms), tout en conservant cet arrangement, réglez le potentiomètre VR811 ou VR812 de la plaquette de l'étage du bord d'attaque de façon que le voltmètre de crête indique une mesure de 0dB (à 0dB les diodes lumineuses "LED"sont éteintes. Voir figure 2.

 Suivez le même procédé pour ajuster l'autre canal en tournant le VR812 ou VR811.

Fig. 2

Repair Parts List Liste des pièces de rechange

| Q501, 502 2SC1327 (R or S) μPA63H (M1 or M2), Dual FET 302001121 Q811, 812, 815 816, 906 3CS2828 (S or T) 301201134 Q817, 818, 821 822 to 833 2SC3384 (R or S) 301201162 Q819, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1980 (S or T) 301201176 Q901, 903 2SC1980 (S or T) 301201171 D403 BZ-120, Zener, 3.6V, 400mW 300313030 D601, 906 WZ-162, Zener, 16V, 500mW W300313030 D819 to 829 903 to 905 MA-150, Diode (Gs) 300111016 D830 RB-152, Rectifier 300919032 300919032 D902 SR1K-4, Rectifier 300919032 300919032 SR1K-4, Rectifier 300919039 300313004 D909, 908 BZ-240, Zener, 24V, 1W 300313006 D909, 909 BZ-140, Zener, 14V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 SEL8801R02, LED ARRAY 300414039 303452120 IC601, 703 NJM4558D-D, Tone Amp etc. 303452152 IC601 SI-1460H, Power Amp 30345220 VARIABLE RESISTORS VR501 250KWT, Balance Control 505212118 | Schematic Location | Description | Part No. |
|--|-----------------------|---|-----------|
| Q401, 402 2SK155 (S) 302001123 Q403, 404, 904 2SA921 (S or T) 301001145 Q501, 502 2SC1327 (R or S) 301201153 Q601 μPA63H (M1 or M2), Dual FET 302001121 Q811, 812, 815 2SC828 (S or T) 301201154 Q813, 814 2SC1384 (R or S) 301201162 Q819, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1380 (S or T) 301201171 Q901, 903 2SC1980 (S or T) 301201171 Q901, 903 2SC1980 (S or T) 301201171 Q901, 904 BZ-120, Zener, 3.6V, 400mW 300313030 Q901, 905 BZ-120, Zener, 12V, 1W 300313030 D602, 811 to 814 WZ-162, Zener, 16V, 500mW 300313030 D815 to 818 H18B, Diode (Ge) 300111008 D819 to 829 MA-150, Diode (Si) 300111016 D901 SVB-20, Rectifier 300919034 D901 SFL8C, Rectifier 300919034 D901 SFL8C, Rectifier 300313009 D909, 910 BZ-240, Zener, 24V, 1W 300313009 | TRAN | ISISTORS, DIODES AND IC | 'S |
| Q403, 404, 904 Q5A921 (S or T) 301001145 | | • | |
| Q405, 902 2SC1318 (S) | | | |
| Q501, 502 2SC1327 (R or S) μPA63H (M1 or M2), Dual FET 302001121 Q811, 812, 815 816, 906 2SC828 (S or T) 301201134 Q813, 814 2817 812 821 0819, 820 2SC1384 (R or S) 301201162 Q819, 820 29403 2SK68A (L or M) 302001113 Q901, 903 25C1980 (S or T) 301201174 D403 B2-120, Zener, 12V, 1W 300313004 D601, 906 WZ-162, Zener, 16.7V, 500mW 300313004 D815 to 818 B15 to 818 B15 to 818 B15 to 818 B15 to 829 903 to 905 MA-150, Diode (Si) 30011106 D800 S7 P30 B2-240, Zener, 24V, 1W 300313005 300110162 D901 S5VB-20, Rectifier 300919032 S71K4, Rectifier 300919032 30011008 D907 908 B2-240, Zener, 24V, 1W 300313005 300313005 D909, 910 B2-140, Zener, 14V, 1W 300313005 303452152 IC601 S1 30141039 IC701, 702, 811 IC812, 813 TA7612AP VARIABLE RESISTORS VR501 Y8601 Y8701, 702, 703 Y8811, 812 YSCKWT, Balance Control 503452152 VR601 Y8601 Y8701, 702, 703 Y8611, 812 YSCKWT, Balance Control 5052121148 YR701, 702, 703 Y8701, 702 | | | |
| G601 μPA63H (M1 or M2), Dual FET 302001121 Q811, 812, 815 816, 906 3CSC828 (S or T) 301201115 Q813, 814 2SCC1384 (R or S) 301201162 Q817, 818, 821 822 to 833 2SA564 (Q, R or S) 301001146 Q819, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1380 (S or T) 301201171 D401, 402 B2-120, Zener, 12V, 1W 300313030 D602, 811 to 814 WZ-162, Zener, 16V, 500mW 300313036 D602, 815 to 818 WZ-162, Zener, 6.7V, 500mW 300313036 D819 to 829 903 to 905 MA-150, Diode (Gi) 300111008 D819 to 829 903 to 905 MA-150, Diode (Gi) 300111016 D901 S5VB-20, Rectifier 300919032 S914-4, Rectifier 300919032 S979-908 B2-240, Zener, 24V, 1W 300313006 B2-240, Zener, 14V, 1W 300313006 SEL8801R02, LED ARRAY 300414039 IC501, 703 NJM4558D-D, Tone, etc. 303452220 VARIABLE RESISTORS VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 | Q405, 902 | | 301201155 |
| G601 μPA63H (M1 or M2), Dual FET 302001121 Q811, 812, 815 816, 906 3CSC828 (S or T) 301201115 Q813, 814 2SCC1384 (R or S) 301201162 Q817, 818, 821 822 to 833 2SA564 (Q, R or S) 301001146 Q819, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1380 (S or T) 301201171 D401, 402 B2-120, Zener, 12V, 1W 300313030 D602, 811 to 814 WZ-162, Zener, 16V, 500mW 300313036 D602, 815 to 818 WZ-162, Zener, 6.7V, 500mW 300313036 D819 to 829 903 to 905 MA-150, Diode (Gi) 300111008 D819 to 829 903 to 905 MA-150, Diode (Gi) 300111016 D901 S5VB-20, Rectifier 300919032 S914-4, Rectifier 300919032 S979-908 B2-240, Zener, 24V, 1W 300313006 B2-240, Zener, 14V, 1W 300313006 SEL8801R02, LED ARRAY 300414039 IC501, 703 NJM4558D-D, Tone, etc. 303452220 VARIABLE RESISTORS VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 | Q501, 502 | | 301201134 |
| Q811, 812, 815 816, 906 2SC828 (S or T) 301201115 Q813, 814 Q817, 818, 821 822 to 833 2SC4384 (R or S) 301201162 Q819, 820 | | | 302001121 |
| 816, 906 0813, 814 0813, 814 2SC1384 (R or S) 3012011162 2812 to 833 0819, 820 2SK68A (L or M) 302001113 2SC1980 (S or T) 3012011162 2SC1980 (S or T) 3012011171 3002011131 3012011171 300313039 BZ-120, Zener, 3.6V, 400mW 300313039 BZ-120, Zener, 16V, 500mW 300313030 BZ-120, Zener, 16V, 500mW 300313030 BZ-120, Zener, 16V, 500mW 300313030 BZ-120, Zener, 6.7V, 500mW 300313030 BZ-120, Zener, 6.7V, 500mW 300313030 BZ-140, Zener, 6.7V, 500mW 300313030 BRI 5 to 818 BR19 to 829 903 to 905 BR-152, Rectifier 300919032 SSVB-20, Rectifier 300919032 SSVB-20, Rectifier 300919032 SR1K-4, Rectifier 300919032 SSVB-20, Rectifier 300919032 SSVB-20, Rectifier 300919032 SF1K-4, Rectifier 300919032 SF1K-4, Rectifier 300919032 SF1K-4, Pectifier 300919032 SCL8801R02, LED ARRAY 300414039 BZ-140, Zener, 14V, 1W 300313005 SEL8801R02, LED ARRAY 300414039 303452192 IC501, 703 INM4558D-D, Tone Amp, etc. 303452152 IC601 SI-1460H, Power Amp 303452120 VARIABLE RESISTORS VARIABLE RE | 0011 012 015 |) | |
| Q813, 814 ZSC1384 (R or S) 301201162 Q817, 818, 821 2SA564 (Q, R or S) 301001146 Q819, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1980 (S or T) 301201171 D401, 402 RD3-6EC, Zener, 3.6V, 400mW 300313030 D601, 906 WZ-162, Zener, 16V, 500mW 300313031 D602, 811 to 814 WZ-067, Zener, 6.7V, 500mW 300313036 D819 to 829 MA-150, Diode (Ge) 300111008 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919038 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452152 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 VRF001 Z50KWT, Balance Adj 51050218 VRF001 Z50KWT, Balance Adj 51050219 VRF011, 702, 703 NJM 58, Level Ind Cal 51050219 V | | 2SC828 (S or T) | 301201115 |
| Q817, 818, 821 2SA564 (Q, R or S) 301001146 8219, 820 2SK68A (L or M) 302001113 Q901, 903 2SC1980 (S or T) 301201171 D401, 402 RD3-6EC, Zener, 3.6V, 400mW 300313039 D403 BZ-120, Zener, 16V, 500mW 300313036 D601, 906 WZ-162, Zener, 16V, 500mW 300313036 D815 to 818 WZ-067, Zener, 6.7V, 500mW 300313036 D815 to 818 KK188, Diode (Ge) 300111008 D819 to 829 MA-150, Diode (Si) 300111016 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919038 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313005 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452152 IC501, 703 NJM4558D-D, Tone, etc. 303452152 IC701, 702, 811 NJM4558D, Tone, etc. 303452208 VRRIABLE RESISTORS VRIABLE RESISTORS VRS01 250KWT, Balance Control <td>0.0,000</td> <td>, · · · · · · · · · · · · · · · · · · ·</td> <td></td> | 0.0,000 | , · · · · · · · · · · · · · · · · · · · | |
| 822 to 833 | Q813, 814 | 2SC1384 (R or S) | 301201162 |
| Q819, 820 Q819, 820 Q819, 903 Q819, 906 Q811 to 814 Q8160, 906 Q811 to 814 Q8160, 26ner, 12V, 1W Q811 to 818 Q819 to 829 Q903 to 905 Q8160, 906 Q811 to 819 Q819 to 829 Q903 to 905 Q8160, 906 Q811 to 819 Q819 to 829 Q903 to 905 Q8160, 906 Q819, 900 Q8160, 906 Q819, 900 Q8160, 906 Q811 to 814 Q8160, 906 Q819, 900 Q8160, 900 Q80313010 Q80313010 Q8031306 Q901 Q909, 910 Q8011108 Q809, 910 Q809, 910 Q809, 910 Q809, 910 Q8160, 900 Q909, 910 Q90, | Q817, 818, 821 |) | |
| Q901, 903 | 822 to 833 | 25A564 (Q, R or S) | 301001146 |
| Q901, 903 | O819 820 | 2SK68A (L or M) | 302001113 |
| D401, 402 RD3.6EC, Zener, 3.6V, 400mW 300313039 D403 BZ-120, Zener, 12V, 1W 300313004 D601, 906 WZ-162, Zener, 16V, 500mW 300313017 D602, 811 to 818 WZ-067, Zener, 6.7V, 500mW 300313017 D815 to 818 K188, Diode (Ge) 300111008 D819 to 829 903 to 905 MA-150, Diode (Si) 300111016 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D902 SR1K-4, Rectifier 300919034 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 SEL8801R02, LED ARRAY 300414039 IC601, 703 NJM4558D-D, Tone Amp, etc. 303452152 IC601 SI-1460H, Power Amp 303452208 VARIABLE RESISTORS VR501 Z50KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 S0KWT × 2, Tone Control 525121148 VR811, 812 S0KWT × 2, Volume Control 525321118 VR801 SWITCHES S1 SWITCHES S1 SWITCHES S2 Slide, Remote, Phono Selector 614030827 < | | | |
| D403 BZ-120, Zener, 12V, 1W 300313004 D601, 906 WZ-162, Zener, 16V, 500mW 300313017 S002, 811 to 818 WZ-067, Zener, 6.7V, 500mW 300313018018 S00313018018 WZ-067, Zener, 6.7V, 500mW 300313018018 S0031809 WX-162, Zener, 6.7V, 500mW 300313036 S0315096 WX-162, Zener, 24V, 1W 300313009 SVB-20, Rectifier 300919032 S71K-4, Rectifier 300919032 S71K-4, Rectifier 300919032 S71K-4, Rectifier 300919032 S71K-4, Rectifier 300919034 S0313009 SVB-20, Rectifier 300919024 S03013009 SEL8801R02, LED ARRAY 300313009 SEL8801R02, LED ARRAY 300313009 SEL8801R02, LED ARRAY 300313009 SEL8801R02, LED ARRAY 3003452192 S03452192 S03452152 S03452215 S03452515 S03452515 S03452515 S03452515 S03452515 S03452515 S03452515 | | | |
| D601, 906 WZ-162, Zener, 16 V, 500mW 300313017 D602, 811 to 814 WZ-067, Zener, 6.7V, 500mW 300313036 D819 to 829 MA-150, Diode (Ge) 300111008 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D907, 908 BZ-240, Zener, 24V, 1W 300313005 D909, 910 BZ-140, Zener, 14V, 1W 300313005 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452192 IC701, 702, 811 NJM4558D, Tone, etc. 303452208 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR801 SWITCHES 51 S1 Push 3-key gang, Function 525321118 SWITCHES S1 Push | D401, 402 | | 300313039 |
| D602, 811 to 814 WZ-067, Zener, 6.7V, 500mW 300313036 D815 to 818 1K188, Diode (Ge) 300111008 D819 to 829 y03 to 905 MA-150, Diode (Si) 300111016 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452215 IC601 SI-1460H, Power Amp 303452220 VARIABLE RESISTORS VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT x. 2, Tone Control 525121148 VR811, 812 50KWT x. 2, Tone Control 525321118 SWITCHES S1 Push 3-key gang, Function 5265212148 S2 Side, Remote, Phono Selector 615212273 <tr< td=""><td></td><td>BZ-120, Zener, 12V, 1W</td><td>300313004</td></tr<> | | BZ-120, Zener, 12V, 1W | 300313004 |
| D602, 811 to 814 WZ-067, Zener, 6.7V, 500mW 300313036 D815 to 818 1K188, Diode (Ge) 300111008 D819 to 829 y03 to 905 MA-150, Diode (Si) 300111016 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452215 IC601 SI-1460H, Power Amp 303452220 VARIABLE RESISTORS VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT x. 2, Tone Control 525121148 VR811, 812 50KWT x. 2, Tone Control 525321118 SWITCHES S1 Push 3-key gang, Function 5265212148 S2 Side, Remote, Phono Selector 615212273 <tr< td=""><td>D601, 906</td><td>WZ-162, Zener, 16 V, 500mW</td><td>300313017</td></tr<> | D601, 906 | WZ-162, Zener, 16 V, 500mW | 300313017 |
| D815 to 818 1K188, Diode (Ge) 300111008 D819 to 829 903 to 905 MA-150, Diode (Si) 300111016 D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D902 SR1K-4, Rectifier 300919024 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 SEL8801 R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452192 IC601 SI-1460H, Power Amp 303452220 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 VARIABLE RESISTORS VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KB, Level Ind Cal 510502187 VR701, 702, 703 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function 615212273 <td< td=""><td></td><td></td><td></td></td<> | | | |
| D819 to 829 903 to 905 MA-150, Diode (Si) 300111016 | | - | |
| MA-150, Diode (Si) 300111016 | | IK 188, Diode (Ge) | 300111008 |
| D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D902 SR1K-4, Rectifier 300919032 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452192 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 IC701, 702, 811 TA7612AP 30345220 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function 52612273 Rotary, Tape Monitor 614030827 S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 2-key, Tone Defeat, etc. 614040828 S9, 10 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Midget Type (STD) 341222500 | D819 to 829 | MA 150 Dinda (C:) | 200444242 |
| D830 RB-152, Rectifier 300919038 D901 S5VB-20, Rectifier 300919032 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313005 SEL8801 R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452192 IC601 SI-1460H, Power Amp 303452220 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 IC701, 702, 813 TA7612AP 303452208 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502191 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function 614030827 S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monit | 903 to 905 | IVIA-150, DIODE (SI) | 300111016 |
| D901 S5VB-20, Rectifier 300919032 D902 SR1K-4, Rectifier 300919024 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313009 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452152 IC601 SI-1460H, Power Amp 303452220 IC701, 702, 811 NJM4558D, Tone, etc. 303452220 IC701, 702, 813 TA7612AP 303452208 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT, 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function Selector 615212273 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) (207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 Fuse, 1A, 250V, Midget Type (STD) 341222500 | | RR-152 Rectifier | 300010039 |
| D902 SR1K-4, Rectifier 300919024 D907, 908 BZ-240, Zener, 24V, 1W 300313009 D909, 910 BZ-140, Zener, 14V, 1W 300313005 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. 303452152 IC601 SI-1460H, Power Amp 303452200 IC701, 702, 811 NJM4558D, Tone, etc. 303452215 IC812, 813 TA7612AP 303452208 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT × 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB × 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function Selector 615212273 SA Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240011247 T001 Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 345225100 Fuse, 5A, 250V, Long Type (STD) 34522500 | | • | |
| D907, 908 D909, 910 BZ-140, Zener, 24V, 1W D909, 910 BZ-140, Zener, 14V, 1W S00313005 SEL8801R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp IC501, 703 NJM4558D-D, Tone Amp, etc. SI-1460H, Power Amp IC812, 813 TA7612AP VARIABLE RESISTORS VARIABLE RESISTORS VR501 VR601 VR601 VR601 VR701, 702, 703 VR601 VR811, 812 VR011 VR | | • | |
| D909, 910 SEL8801 R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. IC601 SI-1460H, Power Amp 303452220 IC701, 702, 811 IC812, 813 VARIABLE RESISTORS VARIABLE RESISTORS VR501 VARIABLE RESISTORS VR501 VR601 VR601 VR601 VR601 VR701, 702, 703 VR811, 812 VR01 VR001 SUITCHES S1 Push 3-key gang, Function Selector Selector Solide, Remote, Phono Selector S1 S04011271 SWITCHES S1 Push 1-key, Muting S5, 6, 7, 8 (1 set) Push 2-key, Tone Defeat, etc. S1, 12, 13 (1 set) Push 3-key, Speaker, Power OTHERS L601 Coil, Anti-parasitic RY901 Relay, Protection Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) Lamp, 8V, 150mA F901 Fuse, 1A, 250V, Long Type (STD) S0345229 303452208 S03452220 S03452220 S03452220 S03452220 S15121130 S03452220 S15121130 S03452220 S15121130 S03452208 S15121130 S03452220 S15121130 S15121130 S03452208 S15121130 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452220 S15121130 S15121130 S15121130 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452220 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452208 S15121130 S15121210 S15121210 S15121210 S1512122100 S15121222100 S15121222100 S15121222100 S15121222200 | | SK1K-4, Rectifier | 300919024 |
| D909, 910 SEL8801 R02, LED ARRAY 300414039 IC401, 402 HA-1457W-02, Phono Amp 303452192 IC501, 703 NJM4558D-D, Tone Amp, etc. IC601 SI-1460H, Power Amp 303452220 IC701, 702, 811 IC812, 813 VARIABLE RESISTORS VARIABLE RESISTORS VR501 VARIABLE RESISTORS VR501 VR601 VR601 VR601 VR601 VR701, 702, 703 VR811, 812 VR01 VR001 SUITCHES S1 Push 3-key gang, Function Selector Selector Solide, Remote, Phono Selector S1 S04011271 SWITCHES S1 Push 1-key, Muting S5, 6, 7, 8 (1 set) Push 2-key, Tone Defeat, etc. S1, 12, 13 (1 set) Push 3-key, Speaker, Power OTHERS L601 Coil, Anti-parasitic RY901 Relay, Protection Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) Lamp, 8V, 150mA F901 Fuse, 1A, 250V, Long Type (STD) S0345229 303452208 S03452220 S03452220 S03452220 S03452220 S15121130 S03452220 S15121130 S03452220 S15121130 S03452208 S15121130 S03452220 S15121130 S15121130 S03452208 S15121130 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452220 S15121130 S15121130 S15121130 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452220 S15121130 S15121130 S15121130 S03452220 S15121130 S15121130 S03452208 S15121130 S15121210 S15121210 S15121210 S1512122100 S15121222100 S15121222100 S15121222100 S15121222200 | | BZ-240, Zener, 24V, 1W | 300313009 |
| SEL8801R02, LED ARRAY 300414039 1C401, 402 HA-1457W-02, Phono Amp 303452192 1C501, 703 NJM4558D-D, Tone Amp, etc. 303452220 1C701, 702, 811 NJM4558D, Tone, etc. 303452215 1C812, 813 TA7612AP 303452208 VARIABLE RESISTORS VAR01 250KWT, Balance Adj 510502187 VR701, 702, 703 50KWT × 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB × 2, Volume Control 525321118 SWITCHES S1 | D909, 910 | BZ-140, Zener, 14V, 1W | 300313005 |
| IC401, 402 | 2000, 0.0 | | |
| NJM4558D-D, Tone Amp, etc. 303452152 IC601 | | | |
| IC601 | IC401, 402 | HA-145/W-02, Phono Amp | 303452192 |
| IC601 | IC501, 703 | NJM4558D-D, Tone Amp, etc. | 303452152 |
| IC701, 702, 811 NJM4558D, Tone, etc. 303452215 303452208 TA7612AP 303452208 VARIABLE RESISTORS VR501 250KWT, Balance Control 515121130 VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT × 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB × 2, Volume Control 525321118 SWITCHES S1 | | SI-1460H, Power Amp | 303452220 |
| VARIABLE RESISTORS VR501 | | | |
| VARIABLE RESISTORS VR501 | | | |
| VR501 | 10012, 813 | 1A/012AF | 303452208 |
| VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (CEE) 345252100 Fost 12 Fuse, 5A, 250V, Long Type (STD) 341222500 | \ | ARIABLE RESISTORS | |
| VR601 300B, DC Balance Adj 510502187 VR701, 702, 703 50KWT × 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB × 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (CEE) 345252100 Fox 100 Fuse, 5A, 250V, Long Type (STD) 341222500 | VR501 | 250KWT Balance Control | 515121120 |
| VR701, 702, 703 50KWT x 2, Tone Control 525121148 VR811, 812 50KB, Level Ind Cal 510502191 VR001 100KB x 2, Volume Control 525321118 SWITCHES S1 Push 3-key gang, Function Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| VR811, 812 VR001 50KB, Level Ind Cal VR001 525321118 SWITCHES S1 Push 3-key gang, Function Selector S1ide, Remote, Phono Selector S2 Slide, Remote, Phono Selector S4 Push 1-key, Muting S5, 6, 7, 8 (1 set) S9, 10 (1 set) Push 2-key, Tone Defeat, etc. Push 3-key, Speaker, Power CTHERS L601 Coil, Anti-parasitic RY901 Relay, Protection Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) PL001 Lamp, 8V, 150mA Fuse, 1A, 250V, Long Type (CEE) F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| SWITCHES S1 | VR701, 702, 703 | 50KWT x 2, Tone Control | 525121148 |
| SWITCHES S1 | VR811, 812 | 50KB, Level Ind Cal | 510502191 |
| S1 Push 3-key gang, Function Selector 614030827 S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 2-key, Tone Defeat, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | VR001 | 100KB x 2, Volume Control | 525321118 |
| S1 Push 3-key gang, Function Selector 614030827 S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 2-key, Tone Defeat, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Long Type (CEE) 345252100 Foot | | SWITCHES | |
| Selector 614030827 S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 2-key, Tone Defeat, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Footl Fuse, 5A, 250V, Long Type (STD) 341222500 | S 1 | _ | |
| S2 Slide, Remote, Phono Selector 615212273 S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Long Type (CEE) Tuse, 5A, 250V, Long Type (STD) 341222500 | J 1 | | 04400000 |
| S3 Rotary, Tape Monitor 601011271 S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Long Type (CEE) 345252100 Footl Fuse, 5A, 250V, Long Type (STD) 341222500 | | | ь14030827 |
| S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 2-key, Tone Defeat, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | S2 | Slide, Remote, Phono Selector | 615212273 |
| S4 Push 1-key, Muting 614010144 S5, 6, 7, 8 (1 set) Push 4-key, Loudness, etc. 614040828 S9, 10 (1 set) Push 2-key, Tone Defeat, etc. 614020437 S11, 12, 13 (1 set) Push 3-key, Speaker, Power 614030829 OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | S3 | Rotary, Tape Monitor | 601011271 |
| S5, 6, 7, 8 (1 set) S9, 10 (1 set) Push 4-key, Loudness, etc. Push 2-key, Tone Defeat, etc. Push 3-key, Speaker, Power OTHERS L601 RY901 Relay, Protection Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) PL001 Lamp, 8V, 150mA Fuse, 1A, 250V, Long Type (STD) Fuse, 1A, 250V, Long Type (CEE) F001 Push 3-key, Loudness, etc. 614040828 614020437 614030829 OTHERS 228641126 240111247 207001492 204001492 204001492 359101127 341222100 Fuse, 1A, 250V, Midget Type (CEE) Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| S9, 10 (1 set) S11, 12, 13 (1 set) Push 2-key, Tone Defeat, etc. Push 3-key, Speaker, Power OTHERS L601 Coil, Anti-parasitic RY901 Relay, Protection T001 Power Transformer (120, 220, 240V, Type G) (100, 120V, Type D) PL001 Lamp, 8V, 150mA Fuse, 1A, 250V, Long Type (STD) Fuse, 1A, 250V, Long Type (CEE) F001 Fuse, 5A, 250V, Long Type (STD) S41222500 | | | |
| OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Long Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| OTHERS L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | 614020437 |
| L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | S11, 12, 13 (1 set) | Push 3-key, Speaker, Power | 614030829 |
| L601 Coil, Anti-parasitic 228641126 RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| RY901 Relay, Protection 240111247 T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| T001 Power Transformer (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | 228641126 |
| (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Fuse, 5A, 250V, Long Type (STD) 341222500 | RY901 | Relay, Protection | 240111247 |
| (120, 220, 240V, Type G) 207001492 (100, 120V, Type D) 204001492 PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Fuse, 5A, 250V, Long Type (STD) 341222500 | T001 | Power Transformer | |
| PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 Foot Fuse, 5A, 250V, Long Type (STD) 341222500 | | | 207001402 |
| PL001 Lamp, 8V, 150mA 359101127 F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| F901 Fuse, 1A, 250V, Long Type (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | PL001 | | 359101127 |
| (STD) 341222100 Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | F901 | Fuse, 1A, 250V, Long Type | |
| Fuse, 1A, 250V, Midget Type (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | 341222100 |
| (CEE) 345252100 F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | J+1222100 |
| F001 Fuse, 5A, 250V, Long Type (STD) 341222500 | | | |
| (STD) 341222500 | | (CEE) | 345252100 |
| (STD) 341222500 | | Fuse, 5A, 250V, Long Type | |
| | F001 | | |
| 1 436, 2.0A 1, 200 v, Wilaget | F001 | | 341222500 |
| Type (CEE) 345952250 | F001 | (STD) | 341222500 |

| | ematic ation Description | Part No. |
|-------|---|---------------------------|
| C001 | Noise Canceller, | |
| | NSK-135 (120V Area) | 470101118 |
| | NSK-132 (Canada Only | 470101129 |
| | PME271M, 0.047μF′X′ | |
| | (220/240V Area) | 470101122 |
| | ECQ-EC 0.047μF | |
| | (220/240V Area) | 470101126 |
| C002, | , 003 Noise Canceller, | |
| | MMS-472(M) (120V Ar | ea) 470101133 |
| | PME271Y447 (220/240 | V Area) 470101124 |
| | Phono Amp PCB Ass'y | 141510175 |
| | Tone Amp & Muting PCB Ass'y | 141710329 |
| | Tone Control PCB Ass'y | 141710331 |
| | Main Amp PCB Ass'y (w/o Power IC | and |
| | Heatsink) | 141610331 |
| | Power Supply PCB Ass'y (w/Long Fu | se) 141810995 |
| | Power Supply PCB Ass'y (w/Midget F | use) 141811045 |
| | DIN Socket PCB Ass'y | 141810996 |
| | Speaker Switch PCB Ass'y (w/Power | SW) 141810951 |
| | Function Selector PCB Ass'y | 141810958 |
| | Indicator Driver PCB Ass'y | 141810997 |
| | Switch Control Unit w/Flex Wire | 654101152 |
| | Fuse Holder (Long Fuse) | 648211184 |
| | Fuse Holder (Midget Fuse) | 648211245 |
| | Voltage Selector | 648211247 |
| | AC Outlet (STD) | 648211255 |
| | (Canada Only) | 648211141 |
| | Pin Jack, 2P, AUX | 624200202 |
| * | Pin Jack, 4P, PHONO, TAPE MONITO | OR 624200204 |
| | Speaker Terminal, 4P | 642400111 |
| | Ground Terminal | 770911119 |
| | Fuse Clip, Long Fuse | 648211146 |
| | Fuse Clip, Midget Fuse | 648211147 |
| | DIN Socket | 625001119 |
| | Headphone Jack | 626110033 |
| | Front Panel (Metallic Brown) | 111911498 |
| | (Black) | 111911499 |
| | Knob, Volume (Metallic Brown) | 116310289 |
| | (Black) | 116310302 |
| | Knob, Selector (Metallic Brown) (Black) | 116310285 |
| | | 116310301 |
| | Knob, Balance, etc. (Metallic Brown) | 116310287 |
| | (Black) Button, Function, etc. (Metallic Brow | 116310288 |
| | (Black) | n) 116210058 116210059 |
| | Button, Loudness, etc. (Metallic Brow | |
| | (Black) | 116210057 |
| | Scale Board | 112011375 |
| | Bonnet | 138011304 |
| | Foot (H=9.5mm) | 673402025 |
| | Wire Clamper | 672200859 |
| | Binder, Capacitor Mtg | 672200878 |
| Screw | , M2x4mm (Ni), Binding Head, LED | 0,22000,0 |
| | Array Mtg | 705212004 |
| | M3x4mm (Ni), Binding Head | 705213004 |
| | M3x6mm (Ni), Binding Head | 705213006 |
| | M3x8mm (Ni), Binding Head | 705213008 |
| | M3x8mm (BLZ), Binding Head | 705223008 |
| | M3x10mm (Ni), Binding Head | 705213010 |
| | M3x15mm (Ni), Binding Head | 705213010 |
| | M3x6mm (Ni), Countersunk, Panel Mt | |
| | M3x6mm (Ni), Oval-countersunk | 702213006 |
| | M4x8mm (BLZ), w/Flat Washer, | , 522, 5000 |
| | Binding Head | 715224008 |
| | M3x6mm (BLZ), Flat Head | 770911166 |
| | • | |

| Screw Tapping-I | I, 3x6mm (Ni), Oval-countersunk | 722213006 |
|------------------|---------------------------------|-----------|
| | ZBC), Bottom Cover Mtg | 726203008 |
| 3x8mm (f | NI) | 726213008 |
| 3x10mm | (BLZ) | 726223010 |
| 3x10mm | (Ni) | 726213010 |
| 3x12mm | (Ni) | 726213012 |
| 4x10mm | (BLZ), Binding Head | 725224010 |
| Screw, Tap-tight | , 4x10mm (Ni), Binding Head | 765214010 |
| Washer, F | | 770500007 |
| | M9 | 770500008 |
| Washer, S | pring, M4 | 770500004 |
| Washer, T | eethed, M3 | 770500014 |
| Nut, | M3 | 770402201 |
| | M4 | 770402202 |
| | M7 | 770402205 |
| | M9 | 770402207 |
| | M12 | 770402209 |
| | | |

Specifications Caractéristiques

AMPLIFIER SECTION

Continuous Power Output . . . 60 watts* per channel, min. RMS,

both channels driven at 8 ohms from 20 to 20,000Hz with no more than 0.03% total harmonic

distortion

Total Harmonic Distortion. . . No more than 0.03% (continuous

(20 to 20,000Hz from AUX) rated power output) No more than 0.009% (conti-

nuous 1/2 rated power output) No more than 0.01% (1 watt per channel power output)

Intermodulation Distortion . . No more than 0.02% (continuous

rated power output) 60Hz: 7kHz = 4:1

No more than 0.03% (continous 1/2 rated power output)

No more than 0.03% (1 watt per channel power output)

Damping Factor. 50 (20 to 20,000Hz, 8 ohms)

Input Sensitivity Impedance

PHONO (MM) 2.5mV/70, 50, 35 kilohms

TUNER, AUX.......150mV/30 kilohms TAPE MONITOR 1, 2 . . .150mV/30 kilohms

Overload Level (T.H.D. 0.5%, 1kHz)

TUNER, AUX......6V

Frequency Response

AUX, TAPE IN 5-70,000Hz, +0dB, -1.0dB (at

1 watt per channel power output)

Tone Control

BASS.....±12dB (50Hz)

TREBLE ±12dB (15kHz)

SUBSONIC Filter.....12dB/oct (15kHz) LOUDNESS (volume control set at -40dB position)

.....+10dB (100Hz), +4dB (10kHz)

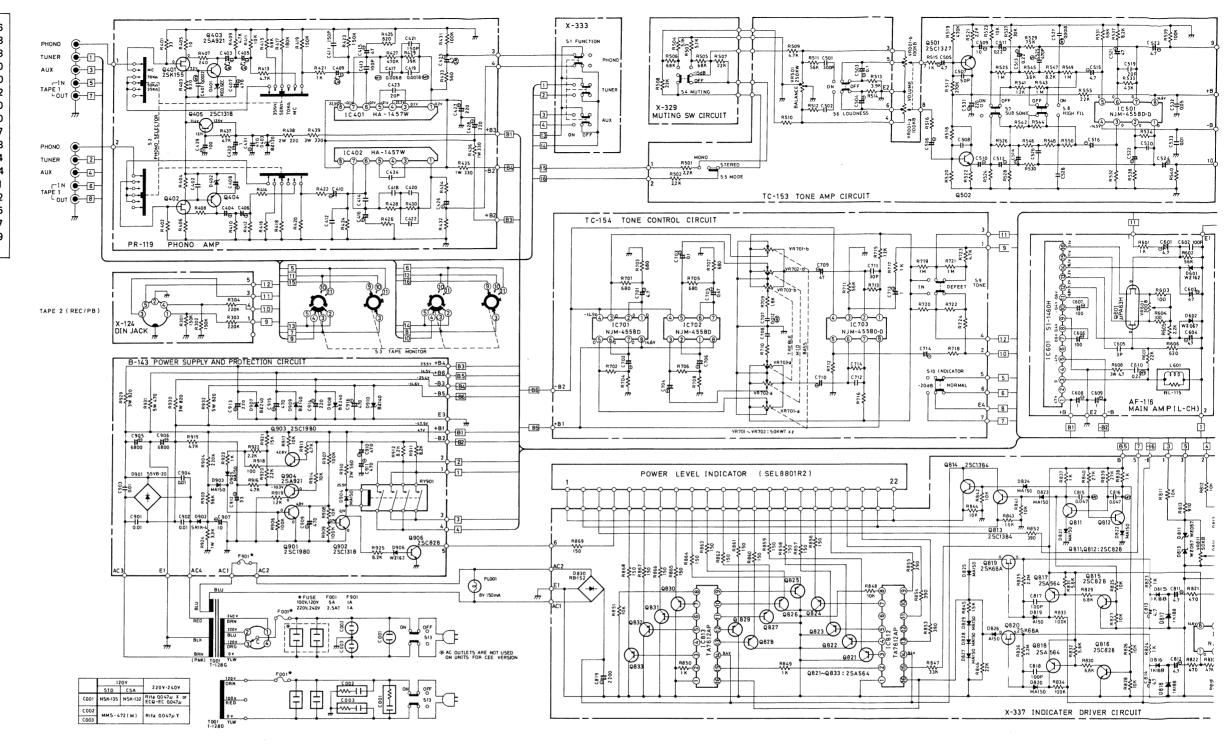
Signal-to-Noise Ratio (IHF, A Network)

PHONO (MM)...........76dB

MISCELLANEOUS

50Hz or 120, 220, 240V/50-60Hz

Specifications and design subject to possible modification without notice.



RESISTORS

5% tolerance, 1/4 watts low-noise type carbon film resistors unless otherwise noted.

k Kilohm M....Megohm

CAPACITORS

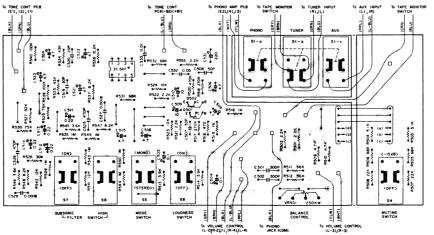
MY....Mylar film capacitor -13- Electrolytic capacitor

LN Low-noise type capacitor

Unless otherwise noted, all capacitance values are expressed in mfd.

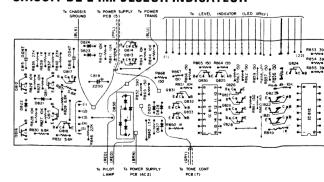
- Voltage reading with VTVM from the point shown to the chassis ground.
- Voltage reading tolerance: within 20%

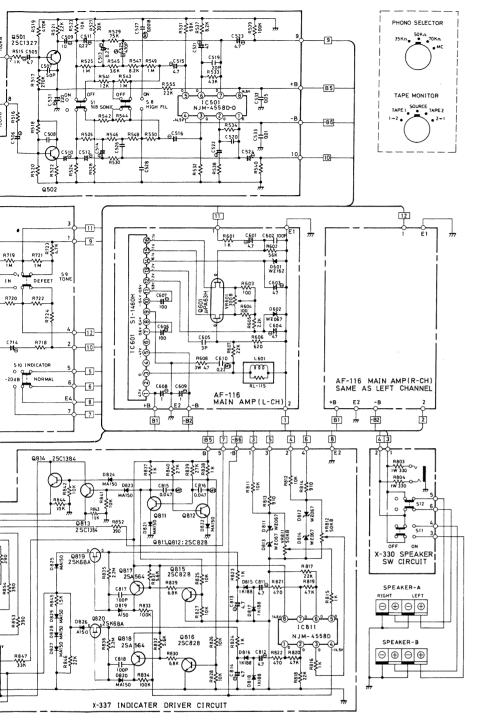
TONE AMP AND MUTING SWITCH CIRCUIT CIRCUIT D'AMPLIFICATEUR DE TONALITE ET D'INTERRUPTEUR DE SOURDINE

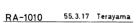


*IC501 must be Low-noise type.

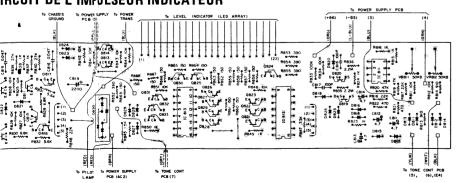
INDICATOR DRIVER CIRCUIT CIRCUIT DE L'IMPULSEUR INDICATEUR

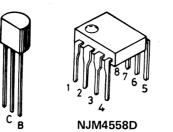






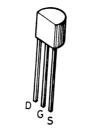
IDICATOR DRIVER CIRCUIT IRCUIT DE L'IMPULSEUR INDICATEUR



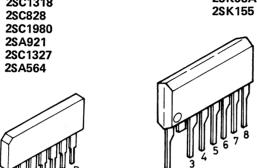


NJM4558DD 2SC1384 2SC1318

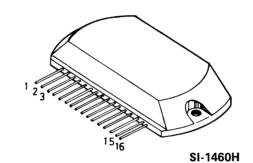
 μ PA63H

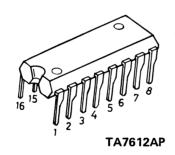


2SK68A

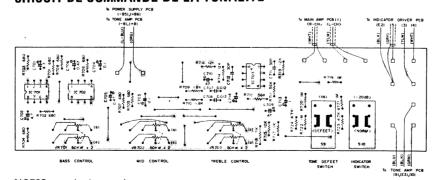


HA1457-02



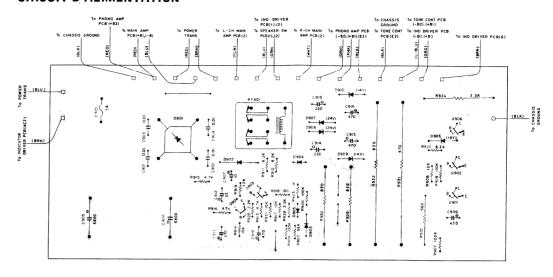


TONE CONTROL CIRCUIT **CIRCUIT DE COMMANDE DE LA TONALITE**

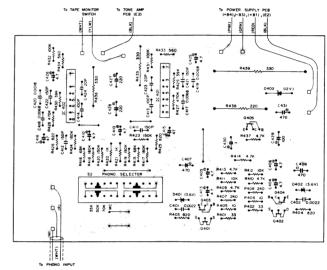


^{*}IC703 must be Low-noise type.

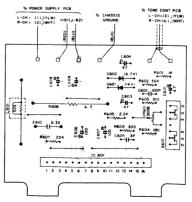
POWER SUPPLY CIRCUIT CIRCUIT D'ALIMENTATION



PHONO AMP CIRCUIT CIRCUIT D'AMPLIFICATEUR PHONOGRAPHIQUE



MAIN AMP CIRCUIT CIRCUIT D'AMPLIFICATEUR PRINCIPALE



SPEAKER SWITCH CIRCUIT CIRCUIT DU COMMUTATEUR DE HAUT-PARLEUR

